

# Index to Volume LXII — 1978

## ANTENNAS AND TRANSMISSION LINES

Aerial Performers of the Radio Circuits, The (Koerner):  
Part 1: 42, Nov. Part 2: 44, Dec.  
Antennas — Keeping Them Up (Ljongquist): 26, Aug.  
Basic Antenna Concepts (Dorbeck): 18, June  
Build This Novice Four-Band Vertical (Anderson): 16, June  
Technical Correspondence: 35, Oct.  
Canadian Wonder, The (Barrett): 18, Oct.  
Designing a Vertical Antenna (Schulz): 19, Sept.  
Flagpole Deluxe, The (Schnell): 29, Mar.  
Groundshade Antenna, The (Allen): 15, Jan.  
Inexpensive Multiband VHF Antenna, An (Geiser): 28, Dec.  
Long-Boom Quagi, The (Overbeck): 20 Feb.  
Technical Correspondence: 34, Apr.  
Series-Section Transmission-Line Impedance Matching (Regier): 14, July  
Short Ground-Radial Systems for Short Verticals (Sevick): 30, Apr.  
Twisted-Wire Quadrature Hybrid Directional Couplers (Fisher), 21, Jan.  
Updating Phased-Array Technology (Atchley): 22, Aug.

## BASIC AMATEUR RADIO

Aerial Performers of the Radio Circuits, The (Koerner):  
Part 1: 42, Nov. Part 2: 44, Dec.  
Antennas — Keeping Them Up (Ljongquist): 26, Aug.  
Audio Continuity Tester, An (Bartlett): 21, May  
Feedback: 13, July  
Basic Antenna Concepts (Dorbeck): 18, June  
Build This Novice Four-Band Vertical (Anderson): 16, June  
Technical Correspondence: 35, Oct.  
Build This "Sardine Sender" (DeMaw): 15, Oct.  
Calculating Capacitor Values (DeMaw): 28, Feb.  
Feedback: 29, Apr.  
Calculating Component Values (Bartlett): 25, Nov.  
Collecting a Ham's Tools of the Trade (Bartlett): 17, Apr.  
Crystals Inside Out (Bartlett): 28, Jan.  
Feedback: 27, Feb.  
Technical Correspondence: 35, May  
FET Volt-ohmmeter with Linear Ohms Readout, An (Rusgrove): 16, Mar.  
Inexpensive Capacitance Meter, An (Blakeslee): 11, Sept.  
Power Relations and the Decibel Made Painless (Flores): 21, July  
Universal Crystal Oscillator, A (Brown): 15, Feb.  
20-Meter, VXO-Controlled, 6-Watt Transmitter, A (Rusgrove): 11, Dec.

## CANADIAN NEWSFRONTS

Advisory Committees: 64, Mar.  
Amendments to GRS Radio Act: 47, July  
ARRL Training Courses: 66, Jan.; 53, Sept.  
Canadian Amateur Licensing Statistics: 47, July  
CRRL Amateur of the Year: 66, Jan.; 46, Aug.  
DOC Creates New Amateur License

Class: 61, Dec.  
DOC Exam Format Proposal: 57, Oct.  
DOC Liaison: 46, Aug.  
DOC Paper — 406- to 960-MHz Band: 58, Apr.  
DOC Symposiums: 66, Jan.  
DOC WARC Second Draft: 57, Oct.  
Duty Relief in Prospect?: 58, Apr.  
Examinations, New Rules: 61, Dec.  
Experimenter License Poll Results: 53, Sept.  
Experimenter License Proposals: 59, May; 47, July; 46, Aug.  
Experimenter License, Update: 58, June  
French Amateurs to Canada: 53, Sept.  
Humanitarian Award Presented: 64, Mar.  
IARU Region 2 Conference: 58, Apr.  
Intruder Watch: 56, Feb.  
Joint DOC/CRRL Meeting: 56, Feb.  
Let's Stop the Carnival: 53, Sept.  
Narrow-Band Voice Modulation: 57, Nov.  
Novice License, Surprise Vote: 64, Mar.  
Phone/CW Subband Proposal: 58, Apr.; 47, July  
Point-of-Sale Control: 54, Feb.  
Privileges for New Amateurs: 64, Mar.  
Quebec Hams Form New Organization: 57, Nov.  
Radio Interference Regulations: 56, Feb.  
Radio Spots Available: 53, Sept.  
Regulations Now Consolidated: 61, Dec.  
Strength in Numbers: 66, Jan.  
Technical Planning Board: 56, Feb.  
VE3NR Retires from DOC: 48, May  
VE/VO 20-Meter National Calling Frequency: 58, Apr.  
WARC: 66, Jan.  
WARC All Services Meeting: 58, June  
WARC Donations to CRRL: 56, Feb.  
WARC Paper, Further Losses Proposed in Canadian Second Draft: 59, May  
WARC Training Film: 64, Mar.  
1978 National (?) Amateur Symposium, The: 57, Oct.

## CONTESTS AND OPERATING ACTIVITIES

Can-Am Contest:  
Results, 1977: 80, Mar.  
CD Party:  
Announcement, April: 83, Mar.  
Contest Disqualification Criteria and Club Competition Rules: 83, Feb.  
Revision: 66, Aug.  
Field Day:  
Rules: 78, May Results: 72, Nov.  
Frequency Measuring Test:  
Results, November 1977: 82, Feb.  
Results, February: 76, May  
Results, May: 73, Sept.  
Results, September: 81, Dec.  
IARU Radiosport Championship:  
Results, 1977: 72, Feb.  
Rules, 1978: 75, May  
International DX Competition:  
Results, 1978: 75, Oct.  
International EME Competition:  
Rules: 82, Mar.  
Results: 70, Sept.  
November Sweepstakes:  
Results, 1977: 66, May  
Rules: 1978: 73, Oct.  
Novice Roundup:  
Rules: 83, Jan.  
Results: 67, Aug.  
Straight-Key Night:  
Results, January: 75, Apr.

Results, July: 72, Oct.  
UHF Contest:  
Rules: 74, July  
Results: 82, Dec.  
VHF QSO Party:  
Results, September 1977: 85, Jan.  
Rules, June: 77, May  
Results, September: 65, Aug.  
Results, June: 84, Nov.  
Results, September: 86, Dec.  
VHF Sweepstakes:  
Results, 1978: 69, July  
Rules, 1979: 80, Dec.  
10-Meter Contest:  
Results, 1977: 73, June  
Rules, 1978: 91, Nov.  
160-Meter Contest:  
Results, 1977: 76, Apr.  
Rules, 1978: 90, Nov.

## EDITORIALS

Another Opportunity for the Amateur Service: 9, Mar.  
Code of Ethics Update: 9, Jan.  
Dawn of an Era?: 9, Sept.  
Double-Digit Damage: 9, Oct.  
Fox Control Committee Boo-boos, The: 9, May  
Ham Activity and Solar Activity: Going Up!: 9, Feb.  
"Of, By and For": 9, July  
QST Delivery Isn't Any Better: 9 June  
Simple Equipment and WARC: 9, Apr.  
Those FCC Exams: 9, Aug.  
VHF Phone for Novices: 9, Nov.  
WARC-79: 9, Dec.

## HAPPENINGS

Action Against Amateurs, FCC Takes: 49, May  
Advisory Committees Members: 61, Mar.; 52, Sept.  
Feedback: 14, Oct.  
Advisory Committees Solicitation: 51, Sept.  
Alaska Frequency Permanent: "Calling" Denied: 54, Oct.  
Alaska Says "Thanks" to Hams: 55, Nov.  
Amateur Exam Cheaters Caught: 51, Aug.  
AMRAD Calls for Papers: 62, Mar.; 48, May  
Anne Jones Nominated to Replace FCC Commissioner White: 60, Dec.  
Amateur Radio Week:  
Alaska: 56, June  
Connecticut: 56, Oct.  
Florida: 56, June  
Hawaii: 55, Oct.; 56, Nov.  
South Carolina: 56, June  
Antenna Cases:  
Charleston, WV: 43, July  
Feedback: 45, Aug.  
DeLorenzo (NY): 55, Oct.  
Entwistle (CT): 55, Oct.  
Maryland: 57, Apr.  
Oelkers (CA): 55, Nov.  
Schroeder (CA): 56, Apr.; 45, July  
Vermont: 57, Apr.; 55, June  
ARNS Elects W9MOL: 48, May  
ARRL Considers Taking FCC to Court: 54, Nov.  
ARRL-Red Cross Agreement: 62, Mar.  
ASCII at Last?: 54, Oct.  
Autopatch, FCC Threatens: 54, June  
Autopatch on Automatically Controlled Repeaters, FCC Prohibits: 58, Dec.  
Bad Net Practices, FCC Dismisses Petition to Curb: 60, Dec.  
Behind the Diamond:

Arnold, Max, W4WHN: 63, Mar.  
 Aurick, Lee, WISE: 51, Aug.  
 Halprin, Bob, K1XA: 56, June  
 Hesler, Ron, VE1SH: 52, Sept.  
 Nelson, John, W1GNC: 65, Jan.  
 Rusgrove, Jay, W1VD: 57, Apr.  
 Steinman, Hal, K1FHN: 54, Feb.  
**Board Meeting:**  
 Highlights: 55, Mar.; 46, Sept.  
 Minutes: 57, Mar.; 47, Sept.  
**Bootlegger Booted:** 55, Oct.  
**Budget, ARRL:** 51, Sept.  
**California Hams to Pay More:** 55, Nov.  
**"Class E" CB:** 56, Oct.  
**Communicating:** 55, Nov.  
**Communications Act of 1978:** 51, Sept.; 56, Oct.  
**Communications Act Rewrite Taken to Chicago:** 54, Nov.  
**DOC Changes Amateur Exam Procedures:** 57, Nov.  
**DOC Creates New Amateur License Class:** 56, Nov.  
**Docket Numbering System:** 56, Apr.  
**Elections, Directors**  
 Notice: 50, Aug.; 43, July  
 Balloting: 54, Nov.  
 Results, 1977: 63, Jan.  
**Executive Committee Minutes:** 61, Jan.; 60, Mar.; 57, June; 46, July; 53, Oct.; 53, Nov.  
**FCC Employees Unionize:** 52, Sept.  
**FCC Notes:** 62, Mar.  
**FCC Office Hours:** 54, Feb.  
**FCC on the Move in Florida and Missouri:** 60, Dec.  
**FCC Commissioner White: Public Service Never More Important Than Now:** 58, Dec.  
**FCC District 24 Moves:** 55, Oct.  
**Goldwater RFI Bill, ARRL Testifies in Support:** 49, Aug.  
**Griggs Retires:** 45, July  
**Handicapped, FCC Asks About Exams:** 54, Oct.  
**"HFER" Petition, FCC Denies:** 53, Feb.  
**"HFers," FCC Continues Crackdown on:** 55, June  
**HF Operators Designated for Hearing, Amateur Applications of:** 53, Feb.  
**Higginbotham Steps Down:** 45, July  
**Illinois Bans Headphone Use in Motor Vehicles:** 56, Apr.  
**Marconi Week:** 62, Mar.  
**Matthews New Southwestern Vice Director:** 45, July  
**Novice License Renewable:** 46, May  
**Novice Subband Expansion, ARRL Petition:** 61, Mar.  
**Obituaries:**  
 Cotterell, Charles M., W0SIN: 56, Oct.  
 de Hart, Sanford D., W4RRV: 64, Jan.  
 Middleton, A. David, W7ZC: 51 Aug.  
 Malowanchuk, Andy, VE6JX: 62, Aug.  
**Pennsylvania Fee:** 47, May  
**Power-Increase Request, FCC Denies:** 56, Apr.  
**President Carter Speaks to Hams Through KMIC: 56, June**  
**Radio Jammer Closed Down:** 63, Jan.  
**Repeater Rules Postponed:** 64, Jan.  
**Repeater Rules Waived:** 56, Apr.  
**RFI Bill — Vox Populi:** 49, Aug.  
**Rocky Mountain Division, New Director:** 55, Nov.  
**Rulemaking Requests:** 56, Apr.; 55, Oct.  
**Rulemaking Requests Denied:** 55, Oct.  
**Scholarships, Radio Amateurs Earn:** 55, Nov.  
**Secondary and Special-Event Licenses**

**Abolished:** 55, Apr.  
**Secondary Licenses Supported:** 55, Feb.  
**Solar Eclipse Net Being Formed:** 56, Nov.  
**Staff Notes:**  
 Glassmeyer, Bernie, W9KDR: 63, Mar.  
 Hart, George, W1NJM: 55, Oct.  
 Horzempa, Stan, W1LOU: 54, Feb.  
 La Porta, Jim, N1CC/K6SXX: 63, Mar.  
 Spear, Barbara: 63, Mar.  
 White, Bob, W1CW: 60, Dec.  
 White, Ellen, W1YL: 60, Dec.  
**Techs Get More Frequencies:** 46, May  
**TVI Handbook, FCC:** 64, Jan.  
**"Two-Letter Call" Appeal, FCC Denies:** 55, Apr.  
**U.S.-Liberia Reciprocal:** 64, Jan.  
**Utah Fees:** 55, Nov.  
**VHF Privileges for Techs and Generals, League Request:** 61, Mar.  
**"WR" Call Signs Will Go:** 46, May  
**Washington, ARRL in:** 55, Feb.  
**"Whiskey" Club Leader License Canceled:** 47, May  
**10-Meter Amplifier Ban, League Files Further Opposition:** 54, June  
**10-Meter Amplifiers, FCC Bans:** 46, May  
**10-Meter Amplifier Ban, Amateurs Lose on Reconsideration:** 51, Sept.  
**220 Restrictions, FCC Drops:** 53, Feb.  
**900 MHz Over Hams' 220-MHz Band for Proposed New CB:** 59, Dec.

## HINTS & KINKS

**Accu-Keyer Trailing Dot:** 34, July  
**Accu-Keyer Weight Control:** 36, Feb.  
 Feedback: 15, Mar.  
**Accu-Memory Capacitor:** 37, May  
**AC Grounds, More About:** 40, Apr.  
**AC-Line Monitor, Expanded Scale:** 39, Dec.  
**Aligning 2-Meter Beam Elements:** 40, Nov.  
**Amidon Part Identifications:** 33, July  
**Antenna, 2-Meter Mobile:** 37, Feb.  
**Antenna, Alternate Receiving:** 39, Jan.  
 Feedback: 15, Mar.  
**Antenna Leads into the House:** 43, June  
**Antenna, Lightweight Field Day:** 40, Jan.  
**Antenna Mount, 2-Meter:** 42, Mar.  
**Antenna, Off-Center-Loaded:** 40, Jan.  
**Antenna Tuner, Inexpensive:** 36, Feb.  
**Ball-Bearing Problem Solved:** 33, July  
**Battery Device, On-Off Indicator:** 41, Mar.  
**Beam Antennas, Ideas for:** 39, Apr.  
**Cabinet Feet, Neoprene Washers:** 33, July  
**Cabinets from Card-File Boxes:** 41, Mar.  
**Cable Harnesses, Dressing Small:** 41, Mar.  
**Calculator Noise Helps Find LC Values:** 32, Aug.  
**Callbook Index:** 31, Aug.  
**CB Beam on 10 Meters:** 40, Nov.  
**Charging Batteries with Solar Energy:** 37, Sept.  
**Circuit Boards, Mounting:** 39, Jan.  
**Circuit Boards, Tinning:** 44, June  
**Clamping Tool:** 37, Oct.  
**Coaxial Fitting on Hardline:** 39, Nov.  
**Coaxial Fittings, Salvaging:** 39, Dec.  
**Coil-Winding Tool:** 39, Jan.  
**Collins 32S-3 VOX Delay:** 39, Dec.  
**Collins 74A-4 Oscillator Dropout:** 32, Aug.  
**Color Code by Alphabetizing:** 39, Apr.  
**Copper Wire, Obtaining:** 44, June  
**Coupler Formula:** 38, May  
**Crystal Board, Pin Terminal:** 33, July  
**CW-to-Telegraph Converter:** 36, Oct.  
**Dial-Lamp Replacement, Transceiver:** 40, Nov.  
**Differential Capacitor Ideas:** 43, June  
**Diode Checking, PRV:** 40, Nov.  
**Drake 4 Receive Drift:** 36, Feb.  
**Emergency Power, Simple:** 42, Mar.  
**Etching Patterns, QST:** 39, Dec.  
**Ferrite Beads, Sliding:** 40, Jan.  
**Filter Mod, Noble:** 31, Aug.  
**Generator Cart:** 37, Oct.  
**Ham-Key HK-1 Feet:** 37, Feb.  
**Heath HA-201 COR:** 32, July  
 Feedback: 32, Nov.  
**Heath HD-10 Positive Key Line:** 34, July  
**Heath HD-10 Squeeze Paddle:** 31, Aug.  
**Heath HD-1250 Carrying Case:** 37, Oct.  
**Heath HM-102, Extra Meters:** 38, May  
**Heath HW-8 Items:** 36, Mar.  
**Heath HW-8 RIT:** 40, Jan.; 38, Dec.  
**Heath HW-101 CW:** 41, Mar.  
**Heath Micoder:** 39, Jan.  
**Heath SB Series, Better S/N and Gain:** 44, June  
 Feedback: 14, Oct.  
**Heath SB-220 Modifications:** 40, Nov.  
**Heath SB-650 with Allied AX-190:** 37, Sept.  
**Heat Sinks, Simple:** 40, Apr.  
**ICOM IC-22S Crib Sheet:** 44, June  
**Impedance Matcher, K7YY:** 37, May  
**KDK-144 Scanner:** 36, Oct.  
**Kenwood TS-520 Microphone:** 36, Feb.  
**Kenwood TS-520 Receiver Jump:** 40, Apr.  
**Key Protector:** 39, Apr.  
**Lightning Arrestor for Rotor Cable:** 42, Mar.  
**Long-Wave Converter:** 32, Aug.  
**MFJ CW Filter, FM BCI:** 36, Feb.  
**Mobile-Installation Concept:** 39, Nov.  
**Mosley TA-33 First Aid:** 32, Aug.  
**Noise Reducer and Hearing Protector:** 40, Apr.  
**NPN or PNP:** 42, Dec.  
**OSCAR Mobile with the IC-245:** 38, Dec.  
**Oscillators, W3IRZ HF and LF:** 38, May  
**Paddles Reduce Fatigue:** 36, Sept.  
**QRP on 10 Meters:** 41, Nov.  
**R-392/URR, Stabilizing the:** 36, Sept.  
**Reference, 1.5 Volt:** 39 Nov.  
**Regency HR-212 Scanner:** 37, Feb.  
**Regency HR-2B Receiver:** 38, Dec.  
**Screwdriver, Demagnetizing:** 42, Mar.  
**Sidetone Monitor-Oscillator-Audio Generator:** 43, June  
**S Meter, Inactive:** 40, Apr.  
**Soldering-Iron Trick Avoids Shadows:** 44, June  
**Solid-State Tubes, Making:** 39, Dec.  
**Swan 500CX/700CX Sidetone:** 32, Aug.  
**Toroidal-Wound Inductors, Measuring:** 41, Nov.  
**TVI, Pong Game Causes:** 44, June  
**TV Transformers, Pinch Hitting with:** 37, Oct.  
**Ugly Duckling Modification:** 37, Oct.  
**UHF Tuning Aid:** 38, May  
**Yaesu FT-227R Mobile Noise Reduction:** 37, Oct.

## INTERNATIONAL NEWS

**Africa, Asia and Amateur Radio:** 66, Dec.  
**African Radio: Common Roots:** 65, Apr.  
**Aliens in U.S.:** 71, Jan.  
**Amateur Radio in Mongolia:** 66, Dec.  
**Amateur Radio in Pakistan:** 33, Aug.  
**Amateurs' Self-Discipline Recognized by Federal German Government:** 51, May  
**Another Step Toward WARC-79:** 61, June  
**"Beyond Differences of Language, Nationality, Religion and Political Systems . . .":** 59, Nov.  
**Heading for Jamaica?:** 51, May  
**Hungary: IARU Region 1 Conference Hailed as Outstanding Success:** 49, July

Iceland-U.S. Reciprocal Agreement: 49, July  
 International Third-Party Traffic: 42, Sept.  
 Keeping the Western Hemisphere Informed  
 = No Easy Task: 55, Sept.  
 Norway's AREC Officially Recognized: 59,  
 Oct.  
 Now — There's Something You Can Do!:  
 59, Oct.  
 Prefixes Allocated, New: 49, July  
 Public Relations, German Style: 61, Feb.  
 QSLing Can Be Dangerous to Foreign Hams:  
 61, Oct.  
 Repeaters in Central America: 65, Apr.  
 South America and WARC-79: 49, July  
 Update: Project Goodwill: 46, Nov.  
 U.S. Amateurs Overseas: 71, Jan.  
 U.S.-Liberia Reciprocal: 64, Jan.  
 Want to Operate in the USSR?: 69, Mar.  
 We Are Not Alone!: 55, Sept.  
 Yugoslavs to Host Hamfest and Meeting:  
 51, May  
 2-Meter DX Record: 71, Jan.

## KEYING AND CONTROL CIRCUITS

Digital Speed Readout for the Electronic  
 Keyer, A (Jones): 11, July  
 Hints and Kinks: 40, Dec.  
 Give Your Repeater Some Identity  
 (Swenton): 41, Dec.  
 Inexpensive Morse Keyboard, An (Helfrick):  
 24, Jan.  
 Low-Cost Dot-Memory Keyer, A (Rohler and  
 Vancura): 22, June  
 Feedback: 45, Aug.  
 Micro-TO Message Keyer, The (Opal):  
 11, Feb.  
 Feedback: 45, Aug.  
 Modular Control Unit, A — Just for  
 Repeaters (Shriner): 11, May  
 Feedback: 13, July

## MEASUREMENTS AND TEST EQUIPMENT

Audio Continuity Tester, An (Bartlett): 21,  
 May  
 Feedback: 13, July  
 Auditory Dip Oscillator, An (Quay): 25,  
 Sept.  
 FET Volt-ohmmeter with Linear Ohms  
 Readout, An (Rusgrove): 16, Mar.  
 Frequency-Measuring Tests Using a Product-  
 Detector SSB Receiver (Upp): 19, Oct.  
 Inexpensive Capacitance Meter, An  
 (Blakeslee): 11, Sept.  
 New Tasks for the Digital Voltmeter  
 (Shriner): 19, Mar.  
 Prescaler Updates the DVM/Frequency  
 Counter (Shriner): 22, Sept.  
 Two-Tone Tester, The (Brown): 22, Nov.  
 Universal Crystal Oscillator, A (Brown):  
 15, Feb.  
 25-kHz Calibrator for the HW-8, A  
 (Karpie): 20, Oct.

## MISCELLANEOUS GENERAL

Amateur Radio Demonstration, My (Vitkus):  
 58, Jan.  
 Feedback: 15, Mar.  
 Ask Not What Amateur Radio Can Do for  
 You (Jensen): 45, Sept.  
 Call Me Anything, But Don't Call Me  
 "Good Buddy" (O'Dell): 49, May  
 Contester, The (Troster): 51, Dec.  
 CPR — It's a Lifesaver (Harris): 44, May  
 CQ Ham Radio (Harris): 40, Aug.  
 Feedback: 14, Oct.

Different Kind of Courage, A (Starin): 41,  
 Oct.  
 Direction Finding, European Style (Sumner):  
 38, Sept.  
 Dr. Glen: An Uncommon Man (Weston):  
 53, Mar.  
 El Hombre y la Mar Expedition: 24, Nov.;  
 63, Dec.  
 Feedback: 54, Dec.  
 FM and Repeater News (McCoy):  
 And the Beat Goes On — : 60, Sept.  
 Apology, An: 60, Sept.  
 Autopatch and Phone-Patch Use —  
 ARRL Guidelines: 60, Feb.  
 Band Plans: 54, July  
 Emergencies and Autopatch: 67, Nov.  
 Frequency Assignments: 54, July  
 In Response — DFing: 66, Mar.  
 Let Your VRAC Rep Know: 66, Mar.  
 New Subband: 69, Jan.  
 RDFing and Jamming: 69, Jan.  
 Repeater Directory: 69, Jan.  
 Self-Policing and Autopatch: 67, Nov.  
 Simple Matter of Courtesy, A: 71, Dec.  
 Summertime DX Possibilities: 59, Apr.  
 Two-Meter Crowding: 69, Jan.  
 Update — Repeater Count: 60, Sept.  
 We Need Help!: 66, Mar.  
 10-Meter Band Plan Change: 67, Nov.  
 20-kHz Channel Spacing — Pros and  
 Cons: 54, July  
 From a Female Viewpoint (Gorski): 42, Jan.  
 "George, the TV Is Acting Up Again"  
 (Harris): 50, Apr.  
 Great Idea, The (Shillington): 59, Jan.  
 Hall of Fame, ARRL: 24, Sept.  
 Hams' Ears Help Coast Guard Seize  
 Smugglers: 17, Oct.  
 Feedback: 54, Dec.  
 His Computer Does the Operating (Harris):  
 45, Apr.  
 Honor Roll: Not for the Faint-Hearted  
 (Foord): 80, Feb.  
 How Safe Is Your Ham Shack? (Leggett,  
 Maas, Wilson and Morris):  
 Part 1: 11, June  
 Technical Correspondence: 31, Sept.  
 Part 2: 37, July  
 Part 3: 39, Oct.  
 It's Been Quite a Year (Clift): 53, Jan.  
 JG1QFW, First Solo Explorer to Reach the  
 North Pole (Bixby): 41, Sept.  
 La Scala of Milan Cures Some Virginia Hams  
 (Davoli): 48, Feb.  
 League-Sponsored Insurance Program Off to  
 Flying Start (Gilbert): 50, June  
 Lure of 2 Meters, The (Kleinman, Phelps,  
 Bonavita, Boyce and Braddock):  
 Part 1: 50, Feb.  
 Part 2: 45, Mar.  
 Part 3: 41, Apr.  
 Marconi Station Reborn on Cape Cod (Place  
 and O'Dell): 42, May  
 Microwaves, Mozzarella Burgers and  
 Mountains (Kearman): 43, Mar.  
 Not Just Bigger — But Better Than Ever  
 (Waters): 52, Apr.  
 On the Road with Uncle Charlie (Harris):  
 45, June  
 Operation Outreach (Mendelsohn): 43, Sept.  
 Photo Contest, ARRL  
 Announcement: 57, Jan.  
 Winners: 90, Nov.  
 Feedback: 54, Dec.  
 PR Coup — NYC Marathon (Mendelsohn  
 and O'Dell): 51, Mar.  
 Feedback: 85, May  
 QRQ 20 (Maxwell): 49, June  
 QST Abbreviations: 94, Oct.

RF Heating in the Ham Bands (Ruderman):  
 13, June  
 Feedback: 27, Sept.  
 Rip-Off, How to Avoid (Kleinman): 48, Jan.  
 RFI Assistance List (Richman): 43, Feb.  
 Successful Museum Exhibit Boosts Plans for  
 Permanent Amateur Station: 47, Jan.  
 They Made It — W5OPC/Double Eagle II:  
 52, Oct.; 51, Nov.  
 Try a Hamfest Code Contest (Rice): 50,  
 Oct.  
 Up Your Code Speed (McMahan): 48, June  
 UTC: The "Right-On" Time (Bixby): 52,  
 Nov.  
 West to Macao (Bell): 35, July  
 What's So Rare as a QST from 1915?  
 (Friedman): 42, Aug.  
 Feedback: 14, Oct.; 32, Nov.  
 What's Your Serial Number? (Frost): 82,  
 Jan.  
 Women Among Us, The (Gorski): 41, Jan.  
 YL News and Views (Moreau):  
 CW Ladies: 70, Mar.  
 Those YL Contests: 62, Feb.  
 Newsletter, The: 56, Sept.  
 YL Book Shelf, The: 66, Oct.  
 YL Clubs — Eastern United States: 51,  
 July  
 YL Clubs — Western United States: 52,  
 May  
 YLs Are There to Help: 60, Nov.  
 YLs Do It Themselves: 64, Apr.  
 YL Speech, The: 52, Aug.  
 1978 — Plan Ahead: 70, Jan.  
 1978: YLs on the Move: 64, Dec.  
 You and Your Log (Bartlett): 44, Oct.

## MISCELLANEOUS TECHNICAL

Audiovox, The — An Amplifier with a  
 Twist (Grabowski): 19, Aug.  
 Baseband Communications System, A (Harris  
 and Cleveland)  
 Part 1: 11, Nov.  
 Part 2: 14, Dec.  
 CB to Ten Meters (Mudge): 26, July  
 Collecting a Ham's Tools of the Trade  
 (Bartlett): 17, Apr.  
 Crystals Inside Out (Bartlett): 28, Jan.  
 Feedback: 27, Feb.  
 Technical Correspondence: 35, May  
 DoppleScAnt, A (Rogers): 24, May  
 Feedback: 13, July  
 El Paso Solar-Powered Repeater, The  
 (Gould): 11, Jan.  
 How Visual Displays Work (Dreher): 11,  
 Mar.  
 Locating Geosynchronous Satellites  
 (Johnston): 23, Mar.  
 Long-Delayed Echo Revisited, A (Cohen,  
 Davis and Davis): 17, Feb.  
 Low-Cost Burglar Alarm for Home or Car,  
 A (Arnold): 35, June  
 Feedback: 45, Aug.  
 More Reflections on LDEs (Simpson): 19,  
 Feb.  
 Mycoder (Fallenbeck): 27, Apr.  
 Programmable Regulated Power Supply, A  
 (Bipes): 28, Aug.  
 QRM and QRN: You've Heard It; Now You  
 Can See It (Vincent and Rich): 47, Nov.  
 Spectacle-Mounted Code Blinker, A  
 (Conover): 25, Feb.  
 Sunspots and the HW-16 (Savage): 29 May  
 Technical Correspondence:  
 "Additional Bands for the Quagi: 34, Apr.  
 "Build This Novice Four-Band Vertical,"  
 On: 35, Oct.  
 Buying Surplus Gear: 35, Apr.



Circuit Board Mounting Tips: 34, Jan.  
 Crystals — From A to X to Y: 35, May  
 Color TVI: 32, Sept.  
 Direct-Conversion Receiving Notes: 33, Jan.  
 Echoes: An Amateur Observation and a Professional Reply: 35, May  
 FM Audio Standards: 34, Jan.  
 Ground-Fault Indicator Precautions: 34, Jan.  
 How Dangerous Is RF Radiation?: 31, Sept.  
 How I Discovered That There's Polarity in Alternating Current: 36, May  
 How to TVI-Proof Your Greenhouse: 41, June  
 HW-8 Items: 36, Mar.  
 LOWFERS — Low-Frequency Experimenters: 36, Mar.  
 Morse Keyboard, Further Notes: 34, Apr.  
 MOSFET Grid Dipper: 34, Feb.  
 Narrow-Band Modulation: 34, Apr.  
 Out-of-This-World Explanation of LDEs: 34, Feb.  
 "Predicting Radio Horizons at VHF," On: 32, Sept.  
 Reducing Spurious Outputs from the W2GN 220-MHz Transverter: 42, June  
 RTTY Band-Pass Filter: 33, Jan.  
 Simplified Analysis of RF Circuits: 35, Feb.; 35, Oct.  
 Solar Wind a Cause of LDEs: 35, Oct.  
 Soldering Aluminum?: 36, Mar.  
 Solid-State PA Matching Networks, On: 34, Oct.  
 Tropospheric Propagation: 42, June  
 Ultra-Modern Linear Amplifier, Further Notes: 35, Apr.  
 Variable-Bandwidth Filters — Irish Style: 35, Mar.  
 Windmill Interference: 34, Feb.  
 Wind Power, Minnesota-Style: 35, Feb.  
 Twisted-Wire Quadrature Hybrid Directional Couplers (Fisher): 21, Jan.  
 2-Meter Frequency Synthesizer, A (Gray): 11, Aug.  
 Feedback: 32, Nov.

## NEW BOOKS

Archer Semiconductor Reference and Semiconductor Application Book: 37, Sept.  
 Design of Active Filters With Experiments, The (Berlin): 31, July  
 English-German QSO Language Instruction for Amateur Radio Operators (Craven): 34, Dec.  
 Giving Two-Way Radio Its Voice (Champion): 42, June  
 Handbook of Linear Integrated Electronics for Research (Hamilton): 35, Sept.  
 How to Identify and Resolve Radio-TV Interference Problems (FCC): 64, Jan.  
 Optoelectronics: Theory and Practice (Texas Instruments): 38, Nov.  
 Radio Amateur's Handbook (ARRL): 21, Dec.  
 Radio Frequency Interference (Lowry, DeMaw, Rusgrove and Steinman): 31, July  
 Saga of the Vacuum Tube (Tyne): 38, Apr.  
 Solid State Basics (DeMaw and Rusgrove): 31, July  
 Tune In The World With Ham Radio (Curtis and Curtis): 36, Aug.  
 VNR Concise Library of Mathematics (Van Nostrand Reinhold): 21, Dec.  
 Zapping of America, The — Microwaves, Their Deadly Risk, and The Cover-Up (Brodeur): 34, May

80-Meter DXing (DeVoldere): 40, Mar.  
 110 Electronic Alarm Projects (Marston): 35, Sept.

## OPERATING PRACTICES

From Russia with Love! (White): 48, Mar.  
 Feedback: 85, May; 45, Aug.  
 Honor Roll: Not for the Faint-Hearted (Foord): 80, Feb.  
 How's DX? (Newkirk, Lowry and Greene): DX Is Great in Seventy-Eight: 75, Jan.  
 Easy Way to Work DX?, An: 67, Apr.  
 KV4AA — 100,000 QSOs in Three Years: 55, July  
 Lowry Takes Reins from Newkirk: 74, Mar.  
 Northern California DX Foundation, The: 61, Oct.  
 Feedback: 54, Dec.  
 Odds and Ends — and Farewell: 63, Nov.  
 QSLing Can Be Dangerous to Foreign Hams: 61, Oct.  
 QSLs Sent vs. QSLs Received — How to Improve Your Ratio: 57, Aug.; 61, Sept.  
 Well Done, Mr. Biffle: 63, Feb.  
 When and Where to Operate: 55, May; 65, June  
 Why and the How of DX, The: 71, Mar.  
 Winter DX Wonderland: 67, Dec.  
 Operating News (Hart):  
 Bad Talk: 91, Oct.  
 European Coverage for W1AW: 86, Mar.  
 Ellen White Resigns: 91, Dec.  
 Forty-Year Reminiscences: 91, Dec.  
 Having a Purpose: 92, Nov.  
 Helping the Beginner: 71, Aug.  
 Making It Interesting: 80, Apr.  
 Meet Your SCM  
 Briggs, W8MPD (MI): 86, Mar.  
 Genter, K4BKX (VA): 75, July  
 QRP Defined: 75, July  
 Schedule for Restructuring: 89, Jan.  
 Toward a 10-Meter Band Plan: 82, May  
 Ultimate DX Contest, The: 84, Feb.  
 WAS Endorsements: 73, Sept.  
 What Price Integrity?: 78, June  
 160 — A Reminder: 75, July  
 Sweepstakes for the Little Guy (Price): 48, Oct.  
 W1AW Notes: 61, Nov.

## PICTURE TRANSMISSION AND RECEPTION

ATV with This Transceiver, Go (Ruh): 22, Apr.  
 Logic Circuit for Phasing the Telefax, A (Smith): 33, Nov.  
 Medium-Scan Television — A New Frontier (Miller): 30, Oct.  
 Producing Weather Satellite Pictures at Lower Cost (Winkler): 32, June  
 Feedback: 45, Aug.  
 SSTV Pictures from Your Microprocessor (Sanderson): 24, Oct.

## PRODUCT REVIEW

Alda 103 HF Transceiver and PS-130 Power Supply: 31, Dec.  
 Amcomm S225 2-Meter FM: 36, Jan.  
 Angle Linear VHF/UHF Receiving Preampifiers: 36, Aug.  
 Antenna Specialists HM-187: 38, Apr.  
 Bearcat 210 Scanner: 30, July  
 Bencher Paddle: 31, May  
 B & K 1820 Frequency Counter: 38, Nov.  
 Clegg FM-28 2-Meter FM: 40, June  
 Collins Mechanical Filter: 40, June

Communications Power WM-7000 Wattmeter: 34, Sept.  
 Cushcraft DX-144 Collinear Array: 30, Feb.  
 Davis CTR-2-500 Frequency Counter: 36, Apr.  
 Feedback: 85, May  
 Daytronics Mimic Programmable Memory Keyer: 32, Dec.  
 Decibel Products Vapor-Bloc Coaxial Cable: 38, Nov.  
 Dentron MLA-2500 Amplifier: 37, Mar.  
 Drake UV-3 FM System: 33, Aug.  
 ETO Alpha 76 Linear Amplifier: 35, Jan.  
 Fluke 8020A Multimeter: 33, Sept.  
 Gamber-Johnson Sound Mount: 39, Mar.  
 Gem Quad: 38, Jan.  
 Genave GTX-800 2-Meter FM: 37, Nov.  
 Hamco Scotia Paddle: 33, Dec.  
 Hamtronics Converter Kits: 29, July  
 Heath Amateur Radio Novice License Course: 39, June  
 Heath HD-1410 Keyer: 38, Mar.  
 Hy-Gain 214 2-Meter Yagi: 32, Oct.  
 ICOM IC-211 2-Meter Multimode: 30, Dec.  
 Info-Tech 30C CW-to-Video Converter: 36, Nov.  
 Info-Tech M-150 and M-75 RTTY Units: 37, Apr.  
 J. W. Miller TVI Filters: 37, Jan.  
 Kampp Electronics Autobrak Kits: 35, Aug.  
 Kantronics 8040-B Receiver: 39, June  
 KDK FM-2015R 2-Meter FM: 31, Oct.  
 Kenwood TS-520S HF Transceiver: 32, May  
 Kenwood TS-700S 2-Meter Multimode: 31, Feb.  
 L-Tronics Little L-Per: 36, Apr.  
 Palomar Engineers VLF Converter: 35, Aug.  
 Propagation Products Insulators and Quad Kit: 39, Mar.  
 Radio Shack TRS-80 Microcomputer: 37, June  
 RIW Products 432-19 Yagi: 34, Dec.  
 Say SPS-20M Power Supply: 33, Oct.  
 Sinclair-Cambridge Programmable Calculator: 31, May  
 Signetics 5534 Op Amp: 33, Feb.  
 Solid-State Music SSM 2020 and 2040: 33, Feb.  
 Spectrum International 1296-MHz Loop Yagi: 33, May  
 Supertex Power MOSFETs: 34, May  
 SWTPC AC-30 Cassette Interface and MF-68 Disk System: 34, Aug.  
 Technico TEC-9900-SS Computer Kit: 28, July  
 Telco 125 2-Meter Amplifier: 40, Mar.  
 Toltec Wire-Wrapping Supplies: 32, Feb.  
 Unibit: 38, Jan.  
 VHF Engineering "Blue Line" Amplifier: 33, Sept.  
 VHF Engineering Synthesizer II: 31, Feb.  
 Wilson System One Tri-Band Antenna: 34, Sept.  
 Yaesu FT-901DM Transceiver: 35, Nov.

## PUBLIC SERVICE

Amateur Radio Shines Through the Blizzard Blitz of '78 (Horzepa): 37, Aug.  
 Blackout Spawns Amateur/Police Emergency Network (Kleinman): 41, Feb.  
 Field Day Came Early to New Mexico (Maxwell): 80, May  
 Public Service (Halprin):  
 Advisory Committee Activities: 64, May  
 Crowd Roars, The: 78, Mar.  
 Getting to Know You: 63, Aug.  
 Gilchrist — One Ham's Dominion: 61, July

Great Idea, A: 68, Sept.  
 Great White Way, The: 73, Apr.  
 Green Keys/RPT = High-Speed Traffic Handling: 71, June  
 "I Wish Someone Would Come Along": 70, Nov.  
 NTS Staff Meeting Report: 70, Feb.  
 Quite a REACTION: 70, Oct.  
 Unique Service Rendered, A: 75, Dec.  
 Year Ago This Month, A: 80, Jan.  
 Public Service Begins with You (Kleinman): 45, Jan.  
 Feedback: 27, Feb.  
 Rain of Terror (Myslewski and Halprin): 50, Jan.  
 Simulated Emergency Test Results, 1978: 63, July  
 Feedback: 27, Sept.  
 Announcement, 1979: 77, Dec.  
 Three Feet of Rain (Horzepa): 55, Dec.  
 Two Sides of the Public Service Story (Ennis, LaVere, Lorenzon and Horzepa): 48, Apr.

## RECEIVING

ABC Active Filter, The (Meleg): 30, June  
 BC-Band Energy — a Rejection Filter (Wetherhold): 22, Feb.  
 Build This High-Performance Top-Band Converter (Arnold and DeMaw): 22, Oct.  
 Club Filter, The (Schubbe): 35, Dec.  
 Frequency Memory for Receivers with Digital Readout (Hayward): 20, Apr.  
 Low-Noise GaAs FET UHF Preamplifiers (Wade and Katz): 14, June  
 Simple Ladder I-F Filter (DeMaw): 18, Aug.  
 Some Experiments with High-Frequency Ladder Crystal Filters (Hardcastle): 22, Dec.  
 State-Variable, The (Berlin): 14, Apr.  
 VHF Coverage for Collins S/Line Receivers (Bingham): 20, May  
 20-Meter High-Performance Direct-Conversion Receiver, A (Rusgrove): 11, Apr.  
 Feedback: 85, May; 13, July  
 25-kHz Calibrator for the Heath HW-8, A (Karpiej): 20, Oct.

## REGULATIONS

Amateurs Have Their Say on the Communications Act of 1978 (Steinman): 56, Dec.  
 Call Me Anything, But Don't Call Me "Good Buddy" (O'Dell): 49, May  
 On the Road with Uncle Charlie (Harris): 45, June  
 Washington Mailbox (Steinman and Bartlett):  
 Beacons: 58, Nov.  
 Call Signs: 58, Nov.  
 Control Operators: 67, Jan.  
 FCC Exams: 57, Sept.  
 Journey Through Part 97, A: 60, June; 48, July  
 Logging Revisited: 59, Feb.  
 Potpourri of Recent Rules Changes: 67, Mar.  
 Regulations Update: 65, Oct.  
 Third Parties: 67, Jan.  
 Some Thoughts on Autopatch and Phonepatch: 62, Apr.  
 610, The: FCC's (Almost) All-Purpose Application Form: 62, Dec.

## SATELLITES

Brand-New OSCAR, A (Kleinman): 55, Jan.  
 Clouds Part, OSCAR 8 Flies: 47, Apr.

Easy Way to OSCAR Mode J, The (Glassmeyer): 49, Dec.  
 Locating Geosynchronous Satellites (Johnston): 23, Mar.  
 His Computer Does the Operating (Harris): 45, Apr.  
 OSCAR 8 Has a Message for You (Glassmeyer and Harris): 39, July  
 Feedback: 27, Sept.  
 OSCAR in the Classroom (Place): 39, May  
 Russian Amateur Radio Satellites Launched, Two: 54, Dec.  
 Satellite DXCC No. 1: 59, Sept.  
 Stanford P76-5 Satellite: 14, Feb.  
 Tracking the Next OSCAR (Harris): Part 2: 38, Feb.  
 \$5 Filter Solves OSCAR Mode J Desense Problem: 21, Nov.

## TECHNICAL PRINCIPLES AND APPLICATIONS

Aerial Performers of the Radio Circuits, The (Koerner);  
 Part 1: 42, Nov.  
 Part 2: 44, Dec.  
 Basic Antenna Concepts: 18, June  
 Baseband Communications Systems, A (Harris and Cleveland):  
 Part 1: 11, Nov.  
 Part 2: 14, Dec.  
 Calculating Capacitor Values (DeMaw): 28, Feb.  
 Feedback: 29, Apr.  
 Calculating Component Values (Bartlett): 25, Nov.  
 Designing a Vertical Antenna (Schulz): 19, Sept.  
 How Visual Displays Work (Dreher): 11, Mar.  
 Newly Discovered Mode of VHF Propagation, A (Reisert and Pfeffer): 11, Oct.  
 Power Relations and the Decibel Made Painless (Flores): 21, July  
 Series-Section Transmission-Line Impedance Matching (Regier): 14, July

## TRANSMITTING

Build This "Sardine Sender" (DeMaw): 15, Oct.  
 Meet the Remarkable but Little-Known Vackar VFO (Carter): 15, Sept.  
 Permeability-Tuned Variable-Frequency Oscillator, A (Gregiore): 26, Mar.  
 Shoes, Size 220 AB or C (Overbeck): 29, Nov.  
 Transmitter Design — Emphasis on Anatomy (DeMaw):  
 Part 1: 16, May  
 Part 2: 24, June  
 Part 3: 23, July  
 Feedback: 27, Sept.; 54, Dec.  
 Part 4: 16, Aug.  
 220-MHz Transmit Converter, A (Merry): 16, Jan.  
 Technical Correspondence: 42, June  
 20-Meter, VXO-Controlled, 6-Watt Transmitter, A (Rusgrove): 11, Dec.

## VHF AND MICROWAVES

Inexpensive Multiband VHF Antenna, An (Geiser): 28, Dec.  
 Long-Boom Quagi, The (Overbeck): 20, Feb.  
 Technical Correspondence: 34, Apr.  
 Low-Noise GaAs FET UHF Preamplifiers (Wade and Katz): 14, June  
 Microwave Mobile Propagation (Thornburg):

33, Mar.  
 Microwaves, Mozzarella Burgers and Mountains (Kearman): 43, Mar.  
 Newly Discovered Mode of VHF Propagation, A (Reisert and Pfeffer): 11, Oct.  
 Predicting Radio Horizons at VHF (Walker): 28, June  
 Technical Correspondence: 32, Sept.  
 Put Your All-Mode 2-Meter Rig on 220! (Overbeck): 17, July  
 Shoes, Size 220 AB or C (Overbeck): 29, Nov.  
 Solid-State Transverter for 70 Cm, A (Eide): 28, Sept.  
 VHF Coverage for Collins S/Line Receivers (Bingham): 20, May  
 What Next After Moonbounce? Venus Bounce! (Simpson): 25, Dec.  
 World Above 50 MHz, The (Tynan):  
 Activity Nights: 67, Feb.  
 Amateur Radio's R & D Department: 62, May  
 Another Chance for 220!: 72, Jan.  
 Antenna-Gain Competition: 62, May  
 Are We Ready for the Fireworks on Six?: 68, Oct.  
 Central States VHF Conference: 61, Aug.; 68, Nov.  
 Conferences — Great: 61, Aug.  
 Dilemma in the Amateur Space Program: 66, Sept.  
 DXpedition to PJ2: 68, Oct.  
 Fourth Annual Eastern VHF/UHF Conference: 72, Apr.  
 Gibraltar 6-Meter Beacon Heard on East Coast: 61, Aug.  
 How Goes It with the 2-Meter Band Plan?: 61, Aug.  
 K5MB Trip to HI a Success: 71, Apr.  
 Microwaves — Our New Frontier!: 59, July  
 Mid-Atlantic VHF Conference Set: 66, Sept.  
 Mysterious 144-MHz Conditions Continue!: 71, Apr.  
 New Beginning, A: 69, June  
 Not Like Rolling Off a Log, But a Lot More Fun!: 73, Dec.  
 Polarization Revisited: 67, Feb.  
 Reflections and Directions: 76, Mar.  
 Some Dos and Don'ts for Harmony on 2: 68, Nov.  
 West Coast VHF Conference: 76, Mar.  
 2-Meter TE Contacts Made: 74, Jan.  
 220-MHz Transmit Converter, A (Merry): 16, Jan.  
 Technical Correspondence: 42, June

## WORLD ADMINISTRATIVE RADIO CONFERENCE

Another Step Toward WARC-79: 61, June  
 Canadian NewsFronts: 66, Jan.; 56, Feb.  
 59, May  
 Hams "Five by Nine" with WARC Comments (Sumner): 46, Oct.  
 Last Call for Comments on FCC WARC Proposals (Sumner): 52, June  
 Now — There's Something You Can Do!: 59, Oct.  
 Region 2 Amateurs Review WARC Progress (Sumner): 52, Dec.  
 Simple Equipment and WARC: 9, Apr.  
 South America and WARC-79: 49, July  
 Theme: WARC-79 (Williams): 46, Sept.  
 WARC-79: 9, Dec.  
 "WARC Station" on the Air at 4U1UT: 27, June